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HEREDITY,
WORRY & INTEMPERANCE,
AS CAUSES OF INSANITY.

BY
DANIEL CLARK, M.D.,

MEDICAL SUPERINTENDENT OF ASYLUM FOR THE INSANE, TORONTO,
EX-PRESIDENT OF THE MEDICAL COUNCIL,
EXAMINER IN CHEMISTRY FOR THE COLLEGE OF PHYSICIANS AND SURGEONS
OF ONTARIO,
AND EXAMINER IN OBSTETRICS AND MEDICAL JURISPRUDENCE FOR THE
UNIVERSITY OF TORONTO.

REPRINTED FROM OFFICIAL DOCUMENTS.

TORONTO:
PRINTED BY C. BLACKETT ROBINSON, 5 JORDAN STREET.
1880.



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HEREDITARY TAINT, WORRY FROM OVER-WORK,
INTEMPERANCE.

THERE were admitted into the Toronto Asylum during the official year 1877, 232 patients; into London Asylum, 129,—total 361. Returns shew that of that number there were twenty-seven cases said to have become insane “from domestic trouble, adverse circumstances and mental anxiety.” Intemperance in drink is said to have added twelve to the number. Those who had inherited tendencies with any other ascertained cause in combination (including the congenital) were the large number of 122. Unknown causes make up a large proportion of the remainder in the returns of this and succeeding years. In 1877 out of the large number of 232 admissions into Toronto Asylum no causes were assigned in 128 cases, and in 1878, out of 189 cases, no causes in 61 cases. In London Asylum out of 214 admitted in 1878, 162 were classed under the head of “unknown causes.” In

Kingston Asylum, out of 107 admissions 29 were thus classified. In the official year of 1878 the admissions into the three above mentioned Asylums were, respectively, 189, 214, 107,—total, 510. Of this number it is fair to infer that a majority of those returned under the heading of "unknown causes" were afflicted with heredity. If there were no apparent cause to those who first observed mental aberration, in nine cases out of ten it lay in the roused possibilities of a tainted constitution. Of the 510 admissions during 1878, 97 cases were said to have become insane from the causes mentioned—17 cases from intemperance in drink, and 125 from the hereditary and congenital tendencies, excited by other causes. The whole in the latter of the above-mentioned exciting causes might be defined by the one word "worry," for "domestic troubles, adverse circumstances, business troubles and mental anxiety" mean the same. A large proportion of the remainder not thus classified, such as epileptics, also possess a hereditary taint in a majority of cases. It is true the classification is far from being approximately true, on account of the imperfect way returns of the anterior history of each patient are made out. A large percentage of cases sent from the gaols are accompanied with little or no information about their antecedents. The histories filled up by friends or relatives, under the ordinary process, are also too often very meagre and unsatisfactory, especially in respect to the inquiry about the mental condition of relatives. This must remain to be the case until a more approved way of arriving at the truth is devised. We must, however, use the figures at our disposal, and classify them as being a representation of minimum cases in the proportion indicated. The large number of those admitted under the head of "unknown causes" is where a fallacy would be liable to creep in.

In looking over the tables of Asylum Reports from year to year, the thoughtful reader cannot help being alarmingly startled at

seeing such a record of large percentages of cases of insanity being attributed to these three causes, viz.:

- I. Hereditary Taint.
- II. Worry from Over-work.
- III. Intemperance.

The hereditary cause may at a low estimate be placed at 45 *per centum* of the insane population. It is worth while in a Report of this kind to make inquiry into the radical causes of such a dire calamity as that of insanity. Nothing new can be written about it to medical men, but if the public can be made to pause and consider in the midst of the hot pursuits of every-day life, some good may result from a cursory glance at the subject. What is this hideous ogre which is working such woe in our midst? To say that a disease is hereditary means, in the community, that it is incurable, although such is not absolutely the case. The main natural prop towards curability seems to be taken away when an influence of this sinister nature has been implanted in a constitution. The number of relations who have succumbed to the same disease is summed up, and commiseration is expressed for the latest victim, slowly capitulating to the malign agency. Like all causes of a morbid nature with the condition of their existence unchanged, the circle of this abnormal tendency ever widens until it might be truly said that a large proportion of the population of the earth is affected more or less by its permeating influence in one form or other. It is of national importance to endeavour to investigate its sources, and to inquire if it be possible to do anything to stay its progress in even a minor degree in that phase of it called insanity.

We see consumptive parents perpetuate in the lungs of some or all of their children or grand-children the tendency to form tubercles in the lungs, which send a large majority of them and their descendants to a premature grave. The scrofulous transmit to the generations following them, in an ever-widening stream, a predisposition to glandular disease, which leaves the body liable to be stricken down, not only with this most persistent of diseases, but also with acute diseases which more readily prey upon a system

weakened by reason of tendencies inherited from the parents. A chain is only as strong as the weakest link. A fort is only as impregnable as its weakest part. So when any debilitated organ gives way the enemy has possession of the bulwarks, and the citadel is in danger.

Even in those cases in which no apparent reason can be given for a decided change of constitution, yet, this deviation becomes a natural heritage. This is illustrated in *Albinos*, who are to be found among all the diverse human races on the face of the globe. This absence of colouring matter from the eyes, hair and skin appears in children of normal parents, but, when once in existence it is transmissible as a patrimony. The same is true of the other extreme, called *Melanism*; of hairlip, of abnormal spinal column, of supernumerary fingers and toes, of acuteness in the organs of sense, and of perversions of taste. Of course, many of these peculiarities have not the pertinacity of reproduction seen in blood diseases.

Moral, intellectual, emotional, affectional qualities and instincts are inherited in the same way, even to collateral lines of ancestry. It is true the exceptions are many from causes beyond human ken, but these legacies are in such a preponderating majority that they must be admitted as rules regulating descent.

It is easy to see then that in a few decades the individual comes to affect a family; the family, a race; and the race, a species. It is one of those influences which does not startle by its malignity as epidemics do. It slowly, quietly, but pertinaciously saps vitality, thwarts nature's efforts towards health, and in the end conquers the vital forces. Good can be transmitted from race to race as well as evil qualities, but unfortunately the latter predominate.

It is not to be wondered at that certain blood diseases are thus transmitted from parents to children, when we notice how even healthy traits of character are handed down to posterity; the peculiar walk; the movements of the hands and head; the facial expression; the hot or cold temperament; the transmission of aptitudes originally acquired by personal habit; the bequeathing of distinctive moral and mental capacities; and a thousand other likenesses and peculiarities can be traced in families for generations. Each person needs only study himself in these salient points to be surprisingly cognizant of how much he imitates

or follows one or both progenitors in movements, feeling, modes of thought and tendencies.

Prominent and characteristic outlines of nose, chin, mouth, ears and eyes are reproduced in families, and remain thus in the successive progeny. The Jews and Gypsies are good illustrations of this law of like producing like.

All the Bourbons had aquiline noses; the members of the Royal House of Austria have thick lips.

Other illustrious races are said to be flat-footed, until it has become a common saying that this natural depression of the arch of the foot is a sign of royal descent. Burton says, in his "Anatomy of Melancholy," "The famous family of Cæsar were known of old, and so surnamed from their red beards; and those Indian flat noses are propagated; the Barbarian chin, and goggle eyes among the Jews, as Bustorius observes: their voice, pace, gestures, looks, are likewise derived *with all the rest of their conditions and infirmities.*"

Idiosyncrasies exist in families, such as intolerance of certain foods, as pork; and medicines, as opium. Life Assurance Companies build chances of life in those who have long-lived ancestors. The prolific tendencies of some families, as well as races, are often subjects of caustic humour and jocular gossip. The roving and stoical Indian, the emotional negro, the phlegmatic German, the volatile and gesticulating Frenchman, the sturdy, cool-headed, slow and persevering Anglo-Saxon, and the imitative, plodding, observant Chinaman, are only evidences of the law of heredity applied to nations. The American people, although in some of the States they are mainly descendants of English immigrants of two centuries ago, still shew the substantial features of their sires. The same is true of the people in those parts of the United States settled by the Teutonic and Gallic races many years ago. The purely American features of character may crop up, yet, the traits of the nation from whence they originally sprang stand out prominently. Any one who observed closely the distinctive appearances, actions, habits and temperments of the various regiments drawn from different parts of the Union, on both sides, during the recent Civil War, could not help but be struck with this. We need only look to the *habitant* of Quebec, the children of Germans

where they are settled, and of the Highlanders and English in different counties of Canada, to be convinced of this statement.

We need only point to the history of illustrious families to shew that gigantic intellects are transmissible: Napier, Pitt, Fox, Herschel, Bache, and many such might be quoted to establish this fact. It is true there are exceptions to this rule, as seen in the descendants of Cromwell, Goethe, Milton, Burns, and Scott. These deviations from a general law may easily be explained, when it is considered how much maternal influence affects offspring, especially if mediocrity is joined to towering genius, and children partake of the similitude of the former. The least change in the conditions of existence may overbalance the characteristics which go to form greatness. This is seen in the many examples history produces of great geniuses hovering all their lives on the borderland of insanity. The least untoward circumstance upsets the giant mind; so the many deviations of even a minor character, which may be inherited, often readily upset the equilibrium of physical and mental vitality sufficiently to change the whole nature of a man. An imperceptible defect in a lens may distort the fairest view. The least change in the ultimate elements of a chemical substance will entirely affect the physical appearance and radical properties of a substance. A drop of foul water will pollute the contents of a large cistern of pure water. In an analogous way this tendency to great change from apparently minor causes is true of natural heritage. A man of impulses with discretion and judgment may go through life without committing himself to rash acts for want of forethought. His son may have the passionate nature, but may be deficient in the powers which regulate conduct. A parent of good mind and morality may give to a child intellect, but the morals may naturally be of a low standard, and from this want of balance he may become an expert counterfeiter, burglar or bank defaulter, or on the other hand he may be of good behaviour and consistent character, but his mental capacity may be of a low order. A child may inherit splendid talents but they are practically useless if he is deficient in prudence, pertinacity and industry. The least change in the imparted physical elements may unhinge the whole man. The rule, however, holds good that like conditions in parents will produce

like results in children. The proportions of each may be somewhat changed, and in this way aptitudes, peculiarities, and similarity may not be as striking as in a photograph, yet, when all the ~~features~~ of each case are closely scrutinized in relation to parentage it will surprise the student how much in common with the parents the most diverse children possess. Even the public make it subject of remark when one child of a family differs from the rest. The history of every neighbourhood shews that some families are notorious for their wickedness, and when occasionally one member of it turns out to be an honest man, the fact is looked upon as a gratifying wonder. On the other hand the exclamation of "who would have thought it?" is often heard when an honourable race produces a rascal, but it is explained away by the remark, "There are black sheep in every flock."

Comte never said a truer thing than when he wrote the axiom that "Mankind is as one man, always living and always learning. The growth of intelligence is gradual, and spreads from the one to the many; until, by a process of ingrainings, these be once changed in organization and produce aptitudes, rising into faculties as the result of modes of thought passing down through a series of generations." On the same point Maudesley says: "The causes of defective cerebral development, which is the physical condition of idiocy, are often traceable to parents. Frequent intermarriage in families may undoubtedly lead to a degeneration which manifests itself in individuals by deaf-mutism, albinism and idiocy. Out of 300 idiots in the State of Massachusetts, whose histories were carefully investigated, as many as 145 were the offspring of intemperate parents. Here, as elsewhere in nature, like produces like, and the parent who makes himself a temporary lunatic or idiot by his degrading vice, propagates his kind in procreation, and entails on his children the curse of a hopeless fate." (*The Physiology and Pathology of Mind.*)

"A horse," says Darwin, "is trained to certain paces, and the colt inherits similar movements. Nothing in the whole circuit of physiology is more wonderful. How can the use or disuse of a particular limb or of the brain affect a small aggregate of reproductive cells in such a manner that the being developed from them inherits the character of either one or both parents? Even

an imperfect answer to this question would be satisfactory." Youatt, the well-known veterinary surgeon, says: "The first axiom we would lay down is this, *like will produce like*; the progeny will inherit the qualities, however mingled, of the parents. We would refer to the subject of diseases, and state our perfect conviction that there is scarcely one of which either of the parents is affected that the foal will not inherit, or, at least, the predisposition to it; *even the consequences of hard work or ill-usage* will descend to the progeny. We have had proof upon proof that blindness, roaring, thick wind, broken wind, curbs, spavin, ringbones and founder have been bequeathed both by the sire and the dam to the offspring." It should be likewise be recollected that, although these blemishes may not appear in the immediate progeny, they frequently will in the next generation."

It is also interesting to note how external marks, skin diseases, deformity, and even accidental deficiencies have been transmitted. There are exceptions—which is a matter for congratulation—but it shews how great the tendency to reproduce the like exists. The amount of suffering, disease, and death which could be prevented by judicious living, can never be estimated. It becomes a serious estimate to know how much epidemics of crime, personal responsibility in violation of law, unbiassed volition, and moral turpitude depend on causes beyond the control of the individual. Free agency is given to all in a greater or less degree, but, in no two of the sons or daughters of Adam is it alike powerful and unshackled.

It will be seen then that what is true in respect to physical and intellectual reproduction is also none the less true of the moral nature as far as tendencies, propensities and desires go. The volition may be strong enough to counteract them, but they may, and do often clog the progress towards morality in thought and good conduct. Lecky, in his "History of European Morals," truly says: "There are men whose whole lives are spent in *willing* one thing and *desiring* the opposite."

The man whose progenitors were not habitual drunkards, and who has consequently no taste for intoxicating liquors, can claim no particular virtue in abstaining from the intoxicating cup, but the man in whom has been transmitted a taste for it may be

obliged to maintain a heroic struggle all his life against the temptation. The same is true of all our moral instincts, and those who judge harshly of a fallen brother or a degraded sister can never be competent arbiters unless they can see the secret springs of action. Dr. Elam says in "A Physician's Problems," "that all the passions appear to be distinctly hereditary—anger, fear, envy, jealousy, libertinage, gluttony, drunkenness;—all are liable to be transmitted to the offspring, especially if both parents are alike affected; and this, as has often been proved, not by force of example or education merely, but by direct constitutional inheritance."

The sad truth is seen among the living and the dead. "Our fathers have sinned, and are not; and we have borne their iniquities." The silver lining in the dark cloud is, that although this heritage may descend to the third or fourth generation, the laws of health re-assert themselves throughout all time, to bring order out of confusion. Did this upward tendency not exist, we might despair of mankind recovering a lost estate, but it is an incentive to virtue and well-doing that ever struggles to gain the mastery, and every victory won are influences which not only assure us of easier triumphs in the future, but they also remove stumbling-blocks out of the way of those who come after.

Dr. Elam truthfully says: "In one we have an impulsive nature, in which, between the idea and the act, there is scarcely an interval; in another, the proneness to yield to temptation of any kind—a feeble power of resistance, inherited either from the *original* or the *acquired* nature of the parent; in the third we have an imbecile judgment; in a fourth, an enfeebled vacillating will; in a fifth, or in all, a conscience by nature or habit torpid, and all but dormant. All these are the normal representatives of an unsound parentage; and all are *potentially* the parents of an unsound progeny; in all is moral liberty weakened; in all is responsibility not an absolute but a relative idea."

Dr. Oliver Wendell Holmes pithily and ironically puts the position of human judgment in this way: "It is singular that we recognize all the bodily defects that unfit a man for military service, and all the intellectual ones that limit his range of thought; but always talk at him as though all his moral powers were per-

fect. Some persons talk about the human will as if it stood on a high look-out, with plenty of light and elbow-room, reaching to the horizon. Doctors are constantly noticing how it is tied up and darkened by inferior organization, by disease, and all sorts of crowding interferences, until they begin to look upon Hottentots and Indians—and a good many of their own race, too—as a kind of self-conscious blood-clocks, with very limited power of self-determination; and they find it as hard to hold a child accountable, in any moral point of view, for inherited bad temper or tendency to drunkenness, as they would to blame him for inherited gout or asthma. Each of us is only the footing-up of a double column of figures that goes back to the first pair. Every unit tells, and some of them are *plus* and some *minus*. If the columns don't add up right, it is commonly because we can't make out all the figures."

Ribot, an eminent French author on heredity, alleges two causes as among the chief at work in cases where the law of transmission does not obviously manifest itself. The first is the disproportion of an initiatory force to the amount of energy it may liberate or direct, as in the slight agencies by which fires are lit or explosions set off. The accidental surroundings of a mother before the birth of her child may affect it for life in a way altogether disproportionate to the forces at work. The second cause which often tends to obscure evidence of heredity is the transformation in development of characteristics which are the same at root. Thus, a consumptive father has a son who suffers from rheumatism or paralysis. Here the transmission has simply been that of a feeble constitution which gives way in the first circumstances of severe trial and takes these or kindred forms.—*Science Monthly*, January, 1879.

A very superficial student of the human constitution cannot fail to observe that although there is this transmitted general uniformity, there is also a striking diversity. The sameness has been continued at least during the historic, and even prehistoric times. If Cuvier is to be believed, cats, dogs, apes, oxen and many kinds of birds found in the catacombs are similar to those of our own day, and the Egyptian mummy of a man of four thousand years ago does not differ in structure, outline and propor-

tion, from the man of to-day. This unchanged general sameness is interesting, in shewing that with fair play nature will be true to its original. It is the futile efforts of this original power to reproduce its like, because of rebellion in its domain, which causes the anarchy in this confederation of forces. The engine may be well constructed, and able to generate much steam, but if the safety-valve is dangerously poised, the governor improperly hung, and the balance wheel out of proportion, the strength of the engine is greatly wasted and impeded. So in man each one is controlled by different forces expended in varied ways to the disadvantage of the motive power. The influence of this law might be put in this way for illustration. It may be supposed that three culprits were selected at random for committing a like crime under precisely similar circumstances. Were it possible for us to get behind the external acts and see the motives and tendencies which impelled each, it would be found that no two did the unlawful deeds under exactly similar impulses. Assuming 100 to be the standard of a normal man, it might be found that the inherited propensity of each to do evil would be hypothetically 82, 76, 40. The resisting power of each against the doing of certain things, and the impelling momentum of volition to do others diametrically opposite, might be supposed to stand in some such relation. It follows, then, that the crime of him who had the more powerful stimulus for good, and the less constitutional incubus to deter, would, in the eye of omniscience, be much more guilty than the poor creature whose volition would be so largely dominated over and hedged round by hindrances no mortal may know. This inequality needs no argument to prove it, for in a greater or less degree it enters into the experience of everyone. Law deals out to the three equal penalties, their infliction being based on external acts, yet their actual guilt would comparatively be very unequal. For the last year and a half an epidemic of murder and other atrocities have been sweeping over this Province, and any one who has inquired into the history of each transgressor of law will be struck with the different circumstances which have surrounded each, anterior to the perpetration of the crime. The family history, the education by precept and example, the willfulness uncurbed, the vicious license unrestrained, the

natural perversity, and the inherited tendencies so different in each, shew how much one man has to contend against to resist crime more than another, and to what extent the judgment and moral sense of each is warped by these underlying forces.

"'Tis with our judgment as our watches; none
Go just alike, yet each believes his own."

It is easy to be understood then, that if natural traits are thus so readily reproduced in offspring, it needs no stretch of imagination to conceive that the same law in operation in disease means the deterioration of the whole man in himself and his succession. There is a lineage of disease as truly as there is a legacy of health, there is a bequest of moral or immoral qualities as surely as a devise of mental excellency. Dr. Dugdale, of New York, traced by reliable records the individual history of each of the descendants of one Margaret Jukes, throughout six generations, and from this mother sprang 709 persons, every one of whom were either idiots murderers, thieves, robbers, or prostitutes. Criminal statistics are full of such examples. The same tendency to procreate its kind in certain forms of disease is seen on every hand, especially in lunatic asylums. This persistent proneness would soon become extinct if its cumulative and exciting cause would only cease; because the human system is always struggling towards health. This vital effort would in the end conquer the enemy by "a survival of the fittest," were it not for the constant reinforcements of weakly acquired or inherited constitutions, brought into existence by ill-assorted marriages, vicious habits, fast living, and general violations of the laws of health. The epileptic, the consumptive, the scrofulous, the syphilitic and the insane marry without knowledge or reflection, and, as a result, fill our hospitals, asylums and prisons with their degenerate progeny, or bequeath to them a brood of ailments which makes a fruitful soil for a crop of deteriorated constitutions, which to the unhappy victims of parental folly, makes life not worth living for. The lower animals are carefully assorted and mated because it pays to raise superior herds of domestic production, but no pains is taken to elevate, ennoble, and improve physically, mentally, socially and morally the human race by taking rational steps to eradicate this evil. Morality rightly forbids law to interpose its arm in this matter,

because of the freedom of choice which must be allowed to the subject, but here is a plague spot to root out, against which moral suasion might be used with good effect. It would be startling to say how much indiscreet marriages lie at the root of our social vices and national sins. The friends of humanity—more especially parents—might by judicious advice and discreet exposure of consequences following rash selection, do more for their children and generations yet unborn, than were they to endow them with the richest legacies. The heathen Chinese reward the parents of great men, thus having regard to this law—we shower honours on, it may be, their worthless descendants.

Burton in his "Anatomy of Melancholy" says, "In giving way for all to marry that will, too much liberty and indulgence in tolerating all sorts, there is a vast confusion of breeds and diseases, no family secure, no man almost free from grievous infirmity or other when no choice is had, but still the eldest must marry; or, if rich, be they fools or dizzards, lame or maimed, unable, intemperate, dissolute, exhaust through riot, as it is said, they must be wise and able through inheritance; it comes to pass that our generation is corrupt, we have many weak persons, both in body and mind, many fearful diseases raging among us, crazed families, our fathers bad, and we are likely to be worse."

Esquirol says that hereditary insanity exists among the rich to the extent of one-half, and among the poor one-third. One of the superintendents of the Bicetre has investigated this matter for a number of years, and he believes that in the aggregate at least seventy-five *per cent.* of cases of insanity arise from this cause. Several eminent jurists go farther, and say that all cases must have a hereditary tendency. These are doubtless extreme views, but they shew how strongly impressed acute observers are with the wide-spread influence of parental transmission, too often arising from ill-judged alliances.

Dr Winn, an English physician of note, who has given a great deal of attention to this subject, summarizes the great jeopardy those run who thoughtlessly form marital alliances, without having respect to these laws of descent:

¶ I. If there is a constitutional taint in either father or mother, on both sides of the contracting parties, the risk is so great, as to

amount almost to a certainty, that their offspring would inherit some form of disease.

II. If the constitutional taint is only on one side either direct or collateral through uncles or aunts, and the contracting parties are both in good bodily health the risk is diminished one-half and healthy offspring *may* be the issue of the marriage.

III. If there have been no signs of constitutional disease for a whole generation, we can scarcely consider the risk materially lessened, as it so frequently reappears after being in abeyance for a whole generation. If two whole generations have escaped any symptoms of hereditary disease, we may fairly hope that the danger has passed, and that the morbid force has expended itself.

It is a pity that the senseless modesty of this prudish age forbids the use of the plainest language, and the most pointed epithets in dealing with this delicate subject. The public attention is not sufficiently directed to it. The physical, mental, and moral well-being of society, it seems, must become secondary to the unions which bring wealth, social position, and worldly honour to an ill-matched pair. This fondness of shoddy and show, of tinsel and tawdry, of pelf and power, sinks all other considerations; the cold-blooded contracts, the wily conspiracies, the well-laid baits to entrap heirs and heiresses because of, and solely for, the well-filled purses, would give abundant material for the saddest chapter in the world's history. Many of these perquisites are not to be despised, were our subject-matter made the first article of matrimonial law, next to pure affection for a worthy object.

✓ ✓ It is not to be forgotten that important as physical health is, society needs other conditions than the purely bodily and intellectual to ensure happiness. The emotions, desires and affections, must be taken into consideration. Their controlling power is great, and, if well directed, beneficial. Unfortunately this is not always the case. These, in active exercise, often spurn advice and brook no control. Affection will not wait to calmly consider consequences. Emotion will excite the most wary at times to do ill-advised and hasty things upon which hinge untold results. Cupid is blind, and reason is too often thrown away on his equally sightless followers. These impulses are often among the sweetest experiences of human life, if guided by discretion and judgment.

If such were always the case, much misery could be avoided and many sorrows unknown. The world is a vast hospital to-day, and will be to the third and fourth generation, principally because of ill-adjudged marriages, with all their dread heritage of misery. The redeeming feature is, that when such unions take place judicious living and intelligent obedience to nature's behest may do much to avert untoward results to themselves and their posterity. The vitiated system always makes gallant efforts to recuperate from its fallen condition, if seconded by intelligent conduct and habit. If the combustibles which are consuming vitality can be quenched, the fire would soon die out for want of fuel. The other alternative is extinction because of the hydra-headed diseases which follow in the train of marriages begun in folly, continued in vicious riot, ruinous indulgence, and ending in life-long misery, an early grave or insanity. This is the rule; let not the exception lure to risk exemption from a general law. The results are too momentous to be lightly considered, and strong affection alone will not be an excuse for a dangerous experiment. If such a choice and consummation will overcome all such formidable obstacles, then is it a Christian duty to so live that the avenging sword may be turned aside by that temperance of life, that moderation of desires, that reasonableness of conduct which may, to some extent, sheath its keen edge or blunt its incisive sharpness for all time to come.

WORRY IN LIFE.

Worry in business or other avocations, whose name is legion, cause loss of appetite, want of sleep, restlessness, nervousness, general physical prostration, low spirits, and all the brood of ills which flow from them. One member of a family being in this condition and who carries evidence of it in his face and conduct, will unsettle the comfort of all with whom he comes in contact. It need scarcely be said that the probability is, children of such a family being possessed of a like organization, which was possibly at one time evanescent, but now fixed, will by inheritance spread the evil influence. These depressors of vital energy may drive the possessors of these active agents into insanity, even in the first instances, or what is more often the case the parents thus affected

may beget children with an insane tendency. The excitement of thoughtfulness, vicious habits, intemperance, or fast living become then in such only the burning match cast into a magazine in which the explosive powder needs only this condition of excitation to rouse latent power and spread wreck and ruin. This cause of insanity is much greater than is generally imagined. When the history of patients for whom admission is asked, and given by friends is scanned, the answers to the questions as to insanity among relatives are often found to be evaded, unless the cases had become so clearly such, that concealment would be of no avail. They will readily acknowledge that such and such relatives were "eccentric," or "queer" or "odd," or "unusually susceptible of strange nervous turns," or "violent in temper without cause," and a dozen other phrases equally equivocal but significant to a student of physical conditions and psychical results.

By cross examination of friends, it is often found that many such in collateral branches have evidenced at some time loss of mental equilibrium to a greater extent than the official documents admit. It would be safe under the Asylum Returns on Hereditary Insanity to add at least one-fourth more than is usually done. It is often not difficult in these inquiries to trace the first fruits of this terrible malady through the conditions brought about from our high pressure civilization. The race of life throughout the more advanced countries of Christendom in the periodic business upheavals; the sacrifices of necessary comforts for show and parade; the hot-house growth in forcing unduly young intellects; the exciting trade and professional rivalries; the periodic political excitement; the domestic troubles; the vitiating public and private offences against physical law, and the countless artificial modes of life, drive myriads of the best and the worst citizens into insanity. Many might have avoided this untoward result by the ordinary exercise of prudence, but others have a life-long struggle against the budding of that fatal seed of constitutional tendency, which only needs such favourable conditions to fructify in the blood, bringing disaster to themselves and entailing the like proneness to the innocents who may come after them, even to the third and fourth generation.

The causes of worry are many in a civilized community, with its

conventional usages, and which are not known in savage or semi-barbarous life. A man is wealthy and his family is surrounded by all the display and comforts which money can give. By business reverses his riches are swept away in a day. The shock to wounded vanity from the deprivation of luxuries and the loss of social caste topple the reason over in some mentally weak members of the family. The exquisites of the Lord Dundreary style, or the belles of fashionable circles find their source of revenue for frivolities suddenly cut off, and thus unexpectedly become deprived of their only heaven upon earth. The light head is staggered at the possibilities of poverty and its train of unpleasant experiences. These butterflies of the sunshine cower before the storm, and having in too many instances no reserve force of mental stability to withstand reverses, become morose, gloomy, cynical, melancholy, or finally maniacal under the trial.

The bold speculator risks his all on an expected rise in stocks or in a commercial venture, and possibly loses both fortune and reason. The miser hoards up his wealth throughout life's best years, wifeless, childless, friendless, and often in the last stage of his cheerless history becomes changed to a reckless squanderer, to the ruin of his treasure and his wits. The monomania of useless saving is followed by the senseless expenditure of what was once treasured up for the love of it. The man of powerful physique and active brain, who never knows what it is to feel tired, keeps all his energies at full pressure throughout the best days of his manhood, suddenly feels languor, sleeplessness, nervousness, irritability, and low-spiritedness come over him like a bird of evil omen. He is startled at the change, and may halt in the midst of his feverish haste to reach the goal of his ambition, thereby saving himself, or make spasmodic efforts to only bring ruin on himself by the vain attempt, when rest is the cure.

There is a pregnant source of mental and physical deterioration which, in a secondary way, seriously affects the adult population as well as the youth of our land. It is the senseless mental overstrain to which the school-children are subjected. Any one can perceive (if such will take the trouble to look) how this is brought about. An examination of the list of studies required of children and youths up to the age of twenty-one and beyond it in our

schools and universities, shews that no young and growing brain can overtake the work laid out for it without great and permanent injury to this delicate and complex organ. Children are put in the worst ventilated houses which can be found in the country, and these too often are literally crammed with them. In this foul air they must study for hours at a time. Evening brings no relaxation for them, because a task needing several hours' study must be done before bed-time, or early in the morning, and this becomes a dreary uninviting round "from weary chime to chime." Besides the four elementary studies, a smattering of almost every other branch of learning is required from mere children. They successfully or vainly endeavour, according to their strength, to overcome these daily burdens and obstacles to health, by a constant effort which produces mental tension. The result is, many never recover from the struggle during the remainder of a lengthy life. Night and day, except a few hours of sleep, from the age of seven up to manhood or womanhood, the susceptible and tender brain is on the rack, and this strain is at a time when only moderate exercise is healthy to this impressive organ. The brain must, like the rest of the body, in its early days gather tone, fibre and capacity, for the great struggle of life. The young are not permitted to do hard manual work because of the tenderness of the body, until maturity is almost reached, but the most important organ of our physical system is urged onwards to the utmost extent of its powers from babyhood upwards. The weary head is filled with all kinds of knowledge, which in former times was wisely judged to belong to the colleges. The small hill of science has become a veritable Andes, over which all young scholars must climb to reach the goal of certified proficiency. Not only so, but the bias, diversities, and natural aptitudes of individuals are not provided for in youth. The same programme of studies is laid down for all. One may have a facility in and a liking for mathematics, another for classics, a third for natural philosophy, and a fourth for mechanics only, yet no provision is made for these differences of mental constitution. A partial solution is attempted in our colleges by a system of option, but this plan to meet this difficulty does not exist in the lower grades of learning. It needs no prophet to see that this hot-house growth, in a foul

atmosphere and a uniform system of forced training, with long hours of study, mean nervousness, lassitude, periodic headaches, a lax, prostrated physical and mental system. A tendency to and an invasion of insanity may end the chapter of blunders, especially if a hereditary predisposition exists. A visit to any of the schools of Toronto needs only be made to convince anyone that the flabby muscles, bleached faces, weak and fluctuating pulses, languid movements, even in the play-ground, and the weary attempts to learn lessons, are not much like the buoyant responses of nature in healthy children. Such are the recuperative powers of the body, that it will in a majority of cases come off victorious against a legion of such foes, yet, an alarming section of the rising generation thus educated carry into after life, in some form of nervous or brain disorder, the effects of the prevailing ignorance and persistent efforts to produce a precocious race by a short cut, and this in spite of ruined constitutions. As a rule, the children who carry off all the prizes and are pointed to as models by admiring friends, are too often taxing with compound interest the present at the expense of the future. In this age of widespread knowledge it is vain for any one to attempt to overtake even the outlines during an ordinary lifetime, and it is far better for ordinary mortals to seek excellency in a few things, than to injure health by a vain attempt to acquire universal knowledge.

It is not to be forgotten, however, that want of moderate mental exercise is as deleterious to the brain, as is want of physical exertion to other parts of the body. Slothfulness may not be so productive of brain disease as over-work is, yet it will lead to many complications conducive to ill-health, and this weakening condition is always followed by a brood of troubles. Laziness and constant ease is not that unmixed good so commonly supposed. It is far better to wear out than to rust out. Moderate work leads to health; idleness begets nervousness, want of sleep, loss of appetite, a flabby constitution, dyspepsia and all their train of mental depression and melancholy, just as worry and over-work will. Danger always lies in the extremes of everything. Osgood has truthfully sung:

"Labour is life : 'tis the still water faileth ;
Idleness ever despaireth, bewaileth ;
Keep the watch wound, for the dark rust assaileth ;
Flowers droop and die in the stillness of noon,
Play the sweet keys, would'st keep them in tune."

It is the harmony of man in his whole being with one accord keeping time in accordance with natural law, which brings health. The pendulum of life must ever swing, but it is for us to see that it vibrates neither too fast, too far, nor too slow. Dr. O. W. Holmes says: "Our brains are seventy-year clocks. The angel of life winds them up once for all, then closes the case, and gives the key into the hand of the Angel of the Resurrection." Many of us drive this time-piece much faster than the Maker intended, and long before these years have passed over our heads our own follies and vices have put to "silence the clicking of the terrible escapement of thought we have carried so long beneath our wrinkled foreheads." The clergyman who studies, writes, speculates and puzzles his head day after day over theological dogmas, becomes a bleached, dyspeptic, nervous invalid, incased in books and within the four walls of a gloomy library from year to year without fresh air and proper exercise; such a man is an unconscious suicide at middle age, or at least a confirmed hypochondriac. It is called a dispensation of Providence, when its proper name would be self-destruction. The lawyer burns his midnight oil over law books, and racks his brain for arguments to sustain a client's cause; the bank clerk turns himself into a calculating machine and for a life-time concentrates his thoughts on columns of figures; the medical man throughout a laborious life of practice is at all hours—night and day—anxious about some critical case on his hands; the merchant watches his sales and the markets every day with feverish anxiety; all classes in the *hurry* *scurry* of life are shortening the lifetime by hastening the clock's movements. A candle which is burning at both ends is soon consumed. Periodic rest is the cure.

When considering this matter of high-pressure living it would have been interesting to know what class of the community suffers the most.

In looking over and tabulating Asylum returns to ascertain if the rural population were as subject to insanity as were those of the towns and cities, in the latter of which existed the greatest mental activity and business anxiety, it was found impossible to form a just estimate, on account of the unequal distribution of Asylum Districts, from which the insane population were

drawn. Some Asylums were only for cities, and exclusively for paupers. In these localities the rich and well-to-do are sent to private or public paying Asylums either at home or in other districts. These consequently could not be considered in the estimate according to population. Other Asylums draw their population partly from the city and partly from the country, often largely from the one or other. In the returns made of the residency of such they were often found to be fallacious because of ignorance, negligence or interest. Even when the whole returns of all the Asylums are taken, they are unsatisfactory, because the purely agricultural class is the only one on which could be based any reliable data. The country merchants, mechanics, professional men, and such like in small towns and villages cannot be properly classified as rural, and even if this were done, on account of the migratory nature of many of these inhabitants being at one time of the city and at another of the country, no correct estimate could be made. The competition among them is equally sharp, and causes as many anxieties as of larger communities, hence no fair comparison with purely city population can be calculated with an approximate degree of certainty. For example, Toronto cannot be fairly chargeable with all the insane who are found within its borders, for, if so, about one-third of all the insane put in this Asylum since its opening would have belonged to this city. While this is true, an approximation can be made, and as far as can be judged by averages, it seems evident that the cities take the lead in this respect, and wherever found, those who are exposed to great mental activity arising from any form of trouble, social, domestic or financial, are very liable to insanity, other conditions being favourable for the invasion. Reasonable exercise of body and mind is healthy, but it is the over-strain which brings premature physical deterioration and mental decay.

INTEMPERANCE.

In my Report of last year it was found necessary to take a stand against the extreme and weakly supported views of amateur medical converts, who condemned *in toto* the use of alcohol as a medicine, and at the same time were loud in their praises of far more dangerous drugs. My opinions were asked for and freely

✓ given, because experience had taught me in the practice of both methods during twenty years how beneficial spirits were in the treatment of some diseases, and how preferable they were in many cases to opium or hydrate chloral as a sedative in such forms of insanity as melancholia and acute mania with exhaustion. It was shown how illogical and, in medical experience, fallacious to extract proofs of the chemico-physiological effects of alcohol from its action on *healthy persons*. Of course those medical men who use it in any case, in any form, or in any degree, cannot condemn it as a medicine, and must allow each physician to use his discretion as to the *when, why* and *how*. The statistical and other proofs adduced were shewn to be overwhelmingly in favour of spirit treatment.

At the same time no one can ignore the evidences seen on every hand of the terrible effects of drunkenness, and the bad results which flow from the drinking usages of society. Like any other drug it is not only not necessary in health, but injurious. No well person is in need of any such beverage. Its ravages are seen in every community, and the victims who are tied to the chariot wheel of this dominant appetite, like willing captives being led to destruction, can be counted by the millions annually. The misery, degradation and crime of which it is the direct cause is appalling. One result of its deleterious effects is insanity: not perhaps to the extent we are led to believe, but it is a sufficiently potent factor to alarm any who have the well-being of society at heart. From childhood upwards we have all heard platform orators give statistics of such fearful significance on this point as would make the youthful mind shudder with horror. It needed the observation of after years to modify these views to some extent at least, and credit to fervid eloquence, joined with good intentions, much of the over-wrought exuberance of these well-meaning social reformers. The truth is bad enough without embellishments. ✓ One of the chief arguments adduced was, that at least three-fourths of all the insane became such from drunkenness. Opinions of distinguished medical men are continually quoted in support of this statement. Few statistics are given to substantiate this view. Anxious to reach the truth on this point as far as Toronto Asylum

is concerned, every name and cause of insanity since March 1st, 1873, to Oct. 1st, 1879, have been examined in respect to causes with the following results. My predecessor, Dr. Workman, carefully checked off all the admissions up to 1872, and the admissions of the years since that have been individually noted to the present time. Nothing has been left to guess-work or averages.

There were admitted into the Asylum from July 1st, 1853, to Oct. 1st, 1879—3,837 patients. Of that number there were classified in their histories:

Temperate	3,342
Intemperate	387
Unknown Causes	108
Total number	3,837

It will be seen that 9.48 *per cent.* is the proportion of drunkards—reported as such—to the whole population for this long period of over twenty-six years. It is, no doubt, true that among those in whom the cause was said to be unknown are some who became insane from the immoderate use of spirits. Yet, as an offset, many are reputed to have become insane from drinking, in whom this intemperance was only a result of the disease, and not a cause in any sense. The first indications might be an intense craving for strong drink, and in this way the condition of such is analogous to the victims of pyromania, kleptomania, and many other manias well known to students of insanity. Tuke says: "I have calculated the percentage of cases caused by intemperance in the Asylums of England and found it to be about twelve."

Taking for granted that the proportional estimate, based on our returns, is approximately correct, it is a serious factor among the causes of insanity. Ten *per cent.* of all our insane sent to mad-houses by reason of undue indulgence in that which is worse than useless to a well person! What is to be done to stop this growing evil? Moral suasion has done much to mould public opinion in favour of total abstinence; but influence, acting and example will never eradicate entirely an active vice, fostered by law and pampered by social usages. Circumscribed local prohibition can do little, because of the impossibility of efficiently enforcing the law in a small section of country. General prohibition can be

the only radical cure, if properly enforced. Unfortunately, Canada is, geographically, badly situated to carry into effect a prohibition law. From ocean to ocean our settled portions are virtually a thin line on the margin of the United States, and unless our neighbours adopted the same law, it would be impossible to enforce a statute which would be so obnoxious to a very active portion of our population, and the violation of which, along our extended frontier, would be a paying speculation to the thousands who would respect neither law nor morality. In the meantime, we have to deal with the drunkards who are in our midst. Lunatic Asylums are not the places for them, and costly retreats, into which the poor cannot find refuge, will not meet the exigencies of to-day. Hereditary drunkards must have the curse removed from them or they from it. The former is not likely to be done at present; the latter may be carried out under Government supervision. The reformation of such is not absolutely hopeless, but the chances of recovery are not many; yet it is the duty of the State to aid such in their efforts to reform, and if this be impossible, then it is equally incumbent to put them out of the way to injure themselves or others. There is greater hope for the drunkards of acquired habits, and if all such, who had become habitual inebriates, were, by law, confined for at least one year in a hospital provided for them, a goodly percentage might again become valuable citizens and useful members of community, with strength of will to resist the besetting sin.

Nor is the immediate injury done by a drunkard to himself, his family and community the worst feature of the case. What was in him an acquired habit often becomes in some of the children a disease. If a child inherits to a great extent the constitution and individual peculiarities of one parent, with no strongly marked traits of the other to counterbalance them, the probabilities are that dipsomania will be the lot of some unfortunate member of that family not thus protected, unless moral influence and early habits of abstinence have kept in check the sleeping demon. We see those objects of pity in every community; they may not drink incessantly, but, like other forms of intermittent insanity, the paroxysms come on at stated times of more or less duration. Between these out-

breaks little or no desire for strong drink may prevail; there may be even disgust, and for months no great craving may be felt. At last it takes possession of the man, and when such is the case nothing short of personal restraint could stop the debauch. Shame, self-respect, loss of position, pecuniary waste, the influence of family and friends, deprivation of social standing, nor any other motive will have any potency to stop such an one in his mad career. He is prepared to become a pariah, a slave, a serf, and do the meanest and most menial things, if drink cannot be procured in any other way. Looking at this vice on any of its sides, every well-wisher of society must be struck by the enormity of its evil. The police-court records appal when we see the number of "drunks" sent to prison in all our cities. The periodic Assizes record the crimes of many a drunken maniac. Untold households have secret histories of beloved members who have been led to destruction by the fascinating cup. This upas tree grows luxuriantly in our soil; this syren sits at the street corners and lures to destroy. Ten *per cent.* of the inmates of our asylums are the victims of this subtle agency of incarnate deviltry. Are there never to be any mercy-drops from this lowering cloud? Is there never to be cast a pencil of light across this shadow from the dark mountains?